

# Purchase Order Receipt Listing

Page 1 of 1

Tuesday, July 31, 2012 2:36:30 PM

All amounts are calculated in domestic currency.

All Vendors PO ID PO17464 Receipt Dates from 7/31/2012 to 7/31/2012 All Line Item Types

All Item ID/GL/WOs All Rec. Employees All Currencies

Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID\Vendor Name	VC-MET001	Metaux Castle									
PO17464	4		M174PH-H900R1.000	f	7/27/2012	7/31/2012	48.3330	\$9.88	0.0000	0	\$477.61
CAD	No		I7-4SS H900 ROUND BAR 1.00 122577/87265	f	48.0000	DESJ02		\$477.61	0.0000	0	
	5		D6101-005P	Each	7/27/2012	7/31/2012	30.0000	\$56.87	0.0000	0	\$1,705.99
	No		7075-T7351 8.25X5.0X2.5 122577/87265	Each	60.0000	DESJ02		\$1,705.99	0.0000	0	
											Total Received Quantity: 78.3330
											Total Qty to Inspect (PO U/M): 0.0000
											Total Reject Quantity: 0.0000
											Total Receipt Value: \$2,183.60
											Total Balance Due Quantity: 0.0000

# Receiving Report

Date:

12/7/81

Batch No:

M12267

Supplier:

METALUX CASTLE

Dart P/O:

17469

Packing Slip: Yes  No   
 Invoice: Yes  No   
 Receipt: Cash  Cr

Release Note Attached: Yes  No  N/A   
 Waybill Attached: Yes  No  N/A   
 Shipment Complete: Yes  No  N/A   
 QC6 Inspection  N/A   
 Work Order  N/A

## Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12 LR

Production/Admin:

12/7/81

Date

Location 

Received/Costing

Z

Initial



**Castle Metals®**

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 1 of 1

No de Formulaire d'Emballage / Shipment No:1403107

Expédié de / Ship From:	Vendu à / Sold To:	Expédié à / Ship To:	Livré à / Deliver To:
A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	METCOR INC. 560 BOUL. ARTHUR-SAUVE SAINT-EUSTACHE, QC J7R 5A8 CAN	METCOR INC. 560 BOUL. ARTHUR-SAUVE SAINT-EUSTACHE, QC J7R 5A8 CA
Date d'expédition / Date Shipped	F.O.B.	Modalités de transport / Freight Terms	Transporteur / Carrier
25-JUL-2012	ORIGIN	Prepaid	LOCAL_FLEET
No du Bon de connaissance / BOL No		1403107-6	

Détails d'expédition / Shipment Details		Destination finale / Final Destination Branch - MON	
Nº de commande / Order No	Nº de ligne Line No	Nº d'article / Item No	Description

2315457	1	14968	1.0000.RD.17CR-4NI.STAINLESS.CF.SOL TR.COND A.132.0000-156.0000 SPECIFICATIONS: AMS 5643 FAX OR EMAIL P/W TO DART
Nº de bon de commande / Purchase Order No	Nbre de pièces / Part Number	Qté commandée / Ordered Qty	Qté Facturée / Invoice Qty

17464		48.00 FT	48.3333 FT
-------	--	----------	------------

Nº de livraison / Delivery No :	Usine / Mill	No de coulée / Heat Number	Code méc / Mech Id	Pièce s / PCS	Largeur (Pouce)/ Width (IN)	Longueur (Pouce)/ Length (IN)	Qté expédiée/ Shipped Qty(LBS)
117798870	NORTH AMERICAN STAINLESS	C2E1		4		145.0000	129.0500

Ces marchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des Etats-Unis. Si elles ont été/ont été exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des Etats-Unis est interdite.

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/were exported thereunder. Diversion contrary to US Law is Prohibited.

Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'essai sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Ce matériel a été reçu et inspecté par  
Reviewed by Authorized Castle Metals Representative:

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.  
Date Printed: 25-JUL-2012 05:02:31 PM


**NORTH AMERICAN  
STAINLESS**

## METALLURGICAL TEST REPORT

 6870 Highway 42 East  
 Ghent, KY 41045-9615  
 (502) 347-6000

Certificate: 741374 06

Mail To:

 A.M. CASTLE AND COMPANY  
 1420 KENSINGTON ROAD-SUITE 220  
 OAK BROOK IL 60523

Ship To:

 A.M. CASTLE AND COMPANY  
 14001 ORANGE AVENUE  
 PARAMOUNT CA 90723

Date: 5/30/2012 Page: 1 Of 1

Steel: 630{17-4}

Finish: Cold Finish

Dia/Thk: 1.0000 in

Leg Length: 144.00 in

Length: 144.00 in

Corrosion:

Customer: 0032 006

NAS Order: LN 83091 6

Your Order: 163466

Item Code: 14968

**PRODUCT DESCRIPTION:**
 AMS 2303E, AMS 5643R  
 Round Bar, Annealed, Smooth Turned, Cold Finished  
 UNS S17400, EN 10204 3.1R, ASTM A484/10  
 ASTM A564/10 ASME SA564-07  
 SOLUTION ANNEALED @ 1900F MIN FOR 1 HR MIN
**REMARKS:**
 COMPLIES W/REQUIREMENTS OF DFARS EU DIRECTIVE 2003.95.  
 EC. ROLS. EAF+AOE+CC. NO WLD REPAIR. MELTED AND MFG IN USA  
 FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

| Bundle Weight |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| BZ66252 .395  | BZ66549 1993  |               |               |               |               |               |               |               |               |               |

**CHEMICAL ANALYSIS** CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Chemical Analysis per ASTM A751/08

Heat Supplier #	CM	C %	CB %	CO %	CR %	CD %	Mo %	Mo %	N %	Ni %	P %
C2E1	US	.029	.153	.11	15.18	3.27	.77	.13	.036	4.22	.029
		S %	SI %	TA %	TI %						
		.0225	.55	.0050	.0020						

**MECHANICAL PROPERTIES**

	No.	Ferrite %	T8-900CAP KSI	T8-900CAP KSI	El-900CAP %	RA-900CAF %	RC-900CAF %	FREQ. No.	SEV. No.
BZ66252	R L	352.0	.10	198.53	175.47	20.70	51.03	43.5	.09
BZ66549	R L	352.0	.10	198.53	175.47	20.70	51.03	43.5	.07



NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS

 Technical  
 Dept. Mgr.

PATO HPGC

**Linda Lacelle**

---

**From:** Johnson, Brian <bjohnson@amcastle.com>  
**Sent:** July-26-12 8:01 AM  
**To:** llacelle@dartaero.com  
**Subject:** Packing slip and cert for line 4 PO17464  
**Attachments:** PSLIP & CERT FOR L 4 PO17464.pdf

Good Morning Linda,

Please find enclosed the packing slip and mill test report for line 4 of your PO17464. Material was shipped to Metcor on your behalf.

Best regards,

Brian Johnson

This E-mail may contain proprietary information and may be confidential. You are to treat this material in accordance with your company's confidentiality policies and limit any distribution accordingly. If you are not the intended recipient of this E-mail, you are hereby notified that any dissemination, distribution or copying of this message is strictly prohibited. If you received this message in error, please delete it immediately.



**Castle Metals®**

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 1 of 2

No de Formulaire d'Emballage / Shipment No:1408204

Expédié de / Ship From:	Vendu à / Sold To:	Expédié à / Ship To:	Livré à / Deliver To:	
A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	WILL CALL-MONTREAL 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2 CA	
Date d'expédition / Date Shipped	F.O.B.	Modalités de transport / Freight Terms	Transporteur / Carrier	No du Bon de connaissance / BOL No
30-JUL-2012	ORIGIN	Prepaid	MANITOULIN	1408204-2

<b>Détails d'expédition / Shipment Details</b>	<b>Destination finale / Final Destination Branch - MON</b>
--	--

N° de commande / Order No	N° de ligne Line No	N° d'article / Item No	Description
2315995	1	752241.MO	2.5000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 8.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 5")) X 5 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 5")) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12

N° de bon de commande / Purchase Order No	Nbre de pièces / Part Number	Qté commandée / Ordered Qty	Qté Facturée / Invoice Qty
17464	YOUR ITEM NUMBER: D6101-005	30.00 PCS	30.00 PCS

N° de livraison / Delivery No :	Usine / Mill	No de coulée / Heat Number	Code méc / Mech Id	Pièce s / PCS	Largeur (Pouce)/ Width (IN)	Longueur (Pouce)/ Length (IN)	Qté expédiée/ Shipped Qty(LBS)
117813165		470001A9		10			106.6560
117813165	ALUMINUM CO OF AMERICA	505061		15			159.9841
117813165		436191		5			53.3280

Ces marchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des États-Unis. Si elles ont été/sont exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des États-Unis est interdite.  
These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.  
Date Printed: 30-JUL-2012 01:46:45 PM



**Castle Metals®**

A. M. Castle & Co.

**BORDEREAU DE MARCHANDISES**

Page 2 of 2

Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'essai sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Ce matériel a été reçu et inspecté par  
Reviewed by Authorized Castle Metals Representative:

Date: \_\_\_\_\_

Name: \_\_\_\_\_

## CERTIFIED INSPECTION REPORT

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.  
Per:

Malcolm Murphy  
Director of Manufacturing Davenport Works

Kerton P. Young  
Quality Assurance Manager

## Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

Ship Date	0 B.L. No.	Invoice No.	Alcoa No.	Item	Page
2009-03-14 3567135		00000	1000078843-1		1
P.O. No./Govt Contract No.		Customer	Alcoa Item	Mfg Order	
23-14883		CASTLE A M G041005634R10 DS-78843-1			

Ship To: A M CASTLE & COMPANY  
3050 SOUTH HYDRAULIC  
WICHITA 67216 KS

Item Description  
 2.5 IN TK (+.075 -.075) X 48.5 IN W (+.3125 -  
 0.000) X 144.5 IN LN (+.5 -0.0) CAT D 164168 (N) A/T 7075-  
 T7351 RECTANGLE MILL FINISH, USI 3MM DEAD ZONE REQ'D BOTH SIDES,  
 SAWED ~~IAC 6879~~ EXC\_NRK A97075-60 REV 25 AMS-QQ-A-250/12 IS 2007 AMS-  
 STD-2154 EXC\_NRK AMS4078 REV G EXC\_NRK ASTMB209  
 REV 07 ASTMB594 REV 06 2SS7055 REV A  
 EXC\_NRK MMS159 REV N PS21211 REV K {{MARKED}}  
 KRAFT PAPER INTERLEAVED  
 MAX GROSS SKID WGT: 4500 LB QUAN TOL +/-  
 25 % USI CL A 3 NM CQR 0137890 REV 19 CUST REQ 09-03-  
 13 \*\*\* W/B 09-03-21 \*\*\*

Num	Package	Ticket	Lot	Weight	Quantity	UOM	Pc Id/Serl
1	717584		433111 ✓	1786	1	PC	:
2	717894		436191 ✓	1777	1	PC	:
				3563	2		

Notes for CQR: 0137890.19

PRODUCT PRODUCED TO THE REQUIREMENTS OF MIL-STD-2154 ALSO MEET THE REQUIREMENTS OF AMS-STD-2154. PRODUCT PRODUCED TO THE REQUIREMENTS OF AMS-STD-2154 ALSO MEET THE REQUIREMENTS OF MIL-STD-2154.

THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMERSION - TYPE I.

PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/12F. PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/12F ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/12.

THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMERSION - TYPE I.

CQR: 0137890.19 -Specification Limits

Tmpr	Dir	UTS	TYS	EL4D
		KSI	KSI	PCT
T7351	Long Transv.	Max	63.9	
		Min	66.0	52.0
				6
T7351	Elec. Cond. (EC)	MIN	38.0	PCT

Chemical Composition	Si	FE	CU	MN	MG	CR	ZN	TI	Each	Other	Other
	Max	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	Total	Aluminum
Alloy 7075	Max									REMAIN	
	Min			1.2		2.1	0.18	5.1			

CASTLE METALS INC

DATE RECD 3-16-09

RECD FROM 5790

APPROVED BY

## CERTIFIED INSPECTION REPORT

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.



Malcolm Murphy  
Director of Manufacturing Davenport Works

Kenton P. Young  
Quality Assurance Manager

## Alcoa Inc.

## PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

1007131 Ship Date	0 B.L. No.	Invoice No.	Alcoa No.	Item	Page 2
2009-03-14 P.O. No./Govt Contract No.	3567135	00000	1000078843-1		
		Customer	Alcoa Item	Mfg Order	
23-14883		CASTLE A M G041D005634R10		DS-78843-1	

CQR: 0137890.19 -Specification Limits (cont.) -----  
Lot: 433111 - Mechanical, Physical, Metallography, Quantometer Results -----

	No->	UTS	TYS	EL4D
Tmpr	Dir	Test	KSI	KSI
T7351	Long Tzansv.	3	69.9	58.2
			69.5	58.2
			69.6	58.1

T7351 Elect Cond #IACS 40.7 41.4 40.8 PCT

Cast Number	Chemical - OES	SI	FE	CU	MN	MG	CR	ZN	TI
H9167054	Actuals		0.07	0.28	1.6	0.03	2.5	0.19	5.7 0.02

Lot: 436191 - Mechanical, Physical, Metallography, Quantometer Results -----

	No->	UTS	TYS	EL4D
Tmpr	Dir	Test	KSI	KSI
T7351	Long Transv.	3	69.3	58.1
			69.6	58.3
			69.7	58.4

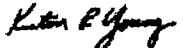
T7351 Elect Cond #IACS 40.7 40.9 40.9 PCT

Cast Number	Chemical - OES	SI	FE	CU	MN	MG	CR	ZN	TI
H9167056	Actuals		0.07	0.28	1.6	0.03	2.5	0.19	5.7 0.02

This material was melted in the United States or a Qualifying Country [REF DFARS 225.872.1(a)]; it was manufactured in the United States

## CERTIFIED INSPECTION REPORT

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet. Per:

	
Malcolm Murphy Director of Manufacturing Davenport Works	Kent P. Young Quality Assurance Manager

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

1019401 Ship Date	0 B.L. No.	Invoice No.	Alcoa No.	Item	Page
2009-05-18	3841289	00000	1000107929-1		1
		P.O. No./Govt Contract No.	Customer	Alcoa Item	Mfg Order
	8571		CASTLE A M-WICHITA	G041109843R02DS-07929-1	

Ship To: A M CASTLE & COMPANY  
4611 EAST 31ST STREET  
WICHITA 67210 KS

## Item Description

2.5 IN TK (+.075 -.075) X 48.5 IN W (+.3125 -  
0.000) X 144.5 IN LN (+.5 -.0.0) CAT X 752241 (N) A/T 7075-  
T7351 RECTANGLE MILL FINISH, USI 3MM DEAD ZONE REQ'D BOTH SIDES,  
SAWED 752241. AMS-QQ-A-250/12 IS 2007 AMS-STD-  
2154 EXC\_MRK AMS4078 REV G BSS7055 REV A  
CSTI006 REV D GAMPS9101 REV B EXC\_MRK MMS159  
REV N PS21211 REV K ((MARKED)) NOT  
INTERLEAVED MAX GROSS SKID WGT: 5000 LB QUAN TOL +/-  
40 % USI CL A 3 MM CQR 0222142 REV 02 CUST REQ 09-05  
14 \*\*\* W/E 09-06-06 \*\*\*

Num	Package	Ticket	Lot	Weight	Quantity	UOM	Pc Id/Serl
1	736475		505061	3588	2	PC	:
2	736481		505061	3584	2	PC	:
3	736496		505061	1810	1	PC	:
				8982	5		

## Notes for CQR: 0222142.2

PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/12F. PROD UCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/12 F ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/12.

THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMEDIATELY - TYPE I.

PRODUCT PRODUCED TO THE REQUIREMENTS OF MIL-STD-2154 ALSO MEET THE REQUIREMENTS OF AMS-STD-2154. PRODUCT PRODUCED TO THE REQUIREMENTS OF AMS-STD-2154 ALSO MEET THE REQUIREMENTS OF MIL-STD-2154.

THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMEDIATELY - TYPE I.

## CQR: 0222142.2 -Specification Limits -----

Tmpy Dir	Long Transv.	UTS	TYS	EL4D
		KSI	KSI	PCT
T7351	Max	63.9		
	Min	66.0	52.0	6
T7351 Elec. Cond. (EC)	MIN	38.0	PCT	

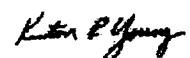
Chemical Composition	SI	FE	CU	MN	MG	CR	ZN	TI	Other	Other	
	Max	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	Each	Total Aluminum
Alloy 7075	Min			1.2		2.1	0.18	5.1		REMAIN	

TEST REPORTS AND  
DATA CONFIRMED



## CERTIFIED INSPECTION REPORT

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.  
Per:

	
Malcolm Murphy Director of Manufacturing Davenport Works	Kanton P. Young Quality Assurance Manager

## Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

Page 2

1019401 Ship Date	0 B.L. No.	Invoice No.	Alcoa No.	Item
2009-05-18	3841289	00000	1000107929-1	
P.O. No./Govt Contract No.		Customer	Alcoa Item	Mfg Order
		8571	CASTLE A M-WICHITA G041109843R02DS-07929-1	

CQR: 0222142.2 -Specification Limits (cont.) -----  
 Lot: 505061 - Mechanical, Physical, Metallography, Quantometer Results -----

Tpmp	Dir	Test	No->	UTS	TYS	EL4D
				KSI	KSI	PCT
T7351	Long Transv.	3		71.8	60.2	10.7
				71.7	60.1	11.1
				71.6	60	10.9

T7351 Elect Cond %IACS 40.1 40.3 40.1 PCT

Cast Number	Chemical - OES	SI	FE	CU	MN	MG	CR	ZN	TI
H4505015	Actuals	0.07	0.29	1.6	0.03	2.5	0.21	5.6	0.02

This material was melted in the United States or a Qualifying Country [REF DFARS 225.872.1(a)]; it was manufactured in the United States



Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4160783

Lot: 470001A9 Cast 222 Drop 27 Ingot 2

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	72.4 : 74.4 (499 : 513)	60.3 : 63.3 (416 : 436)	11.1 : 11.2

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :	39.8 Min	41.6 Max
(MS/M) :	23.1 Min	24.1 Max

(ASTM E1251)

Chemistry:	Si	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.09	0.19	1.5	0.02	2.5	0.20	5.8	0.04	0.01	0.01	TOT 0.05

Lot: 470010A0 Cast 222 Drop 29 Ingot 3

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	72.7 : 74.4 (501 : 513)	60.7 : 63.7 (419 : 439)	10.7 : 11.2

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :	40.8 Min	41.2 Max
(MS/M) :	23.7 Min	23.9 Max

(ASTM E1251)

Chemistry:	Si	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.09	0.20	1.5	0.03	2.4	0.20	5.6	0.04	0.01	0.01	TOT 0.05

### ALLOY LIMITS

Chemistry:	Si	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

RECEIVED

APR 27 2004

4-31 G



Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4160783

### TEST NOTES

7075-T7351 plate 3.001-3.500" thick, if ultrasonically inspected, meets requirements of CMMPO25 per SDR CMMPO25-KaiserT-1. 7075-T7351 plate 3.501-5.000" thick, if ultrasonically inspected, meets requirements of CMMPO25 per SDR CMMPO25-KaiserT-2.

Metal represented by this test report was immersion ultrasonically tested from one side and meets the Class A and Class B requirements of all specifications referenced on this test report.



RECEIVED  
APR 27 2009

### CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE UNITED STATES OF AMERICA OR A QUALIFYING COUNTRY PER DFARS 225.872-1(e), WAS MANUFACTURED IN THE UNITED STATES OF AMERICA, AND MEETS THE REQUIREMENTS OF DFARS 252.225 FOR DOMESTIC CONTENT. THIS MATERIAL HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED.

BILL POYNOR, LABORATORIES SUPERVISOR



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO17464

Purchase Order Date 7/17/12

PO Print Date 7/17/12

Page Number 1 of 2

Order From :

METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100  
TORONTO, ON M4Y 3A5  
CA

Contact Name  
Vendor Phone 514 694 9575  
Vendor Fax 514 695 3281  
Vendor Account Nbr

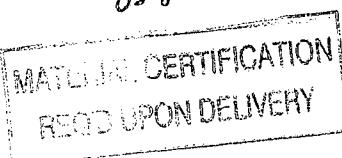
Buyer Chantal Lavoie  
Requisition Nbr  
Tax Resale Nbr 10127-2607  
Terms Net 30  
Currency CAD  
FOB Destination-Collect

Ship To : DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAXED**

*internal*

Line Nbr	Reference Revision ID	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
	<b>Vendor Part Number</b>						
1	M304R0.375 <i>028</i>	304 ROUND BAR 0.375	7/27/12 Yes	✓ 24.00 f	Yours ppd	\$1.3900	\$33.36
2	M304R1.000 <i>029</i>	304 round bar 1.00	7/27/12 Yes	✓ 12.00 f	Yours ppd	\$7.7200	\$92.64
3	M303R0.750 <i>028</i>	303 Round Bar 0.750	7/27/12 Yes	108.00 f	Yours ppd	\$4.2600	\$460.08
	<b>Specia. Inst:</b>	MATERIAL: MATERIAL: 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE					
	<b>Specia. Inst:</b>	MATERIAL: MATERIAL: 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE					
	<b>Specia. Inst:</b>	MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE					



No substitution or deviation without  
consent.

Certificate of Conformity or Material  
Certification required? YES  NO

Change Nbr: 1

Change Date: 7/17/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO17464**

Purchase Order Date 7/17/12  
PO Print Date 7/17/12

Page Number 2 of 2

Order From :

VC-MET001

METAUX CASTLE  
A.M. CASTLE & CO. (CANADA) INC. - BOX B9204 PO BOX 9100  
TORONTO, ON M4Y 3A5  
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	514 694 9575	Requisition Nbr	
Vendor Fax	514 695 3281	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	Destination-Collect

4	M174PH-H900R1.000	17-4SS H900 ROUND BAR 1.00	7/27/12	48.00	Yours ppd	\$10.0700	\$483.36
---	-------------------	-------------------------------	---------	-------	-----------	-----------	----------

Yes

48-333

(12/13)

**Special Inst:** MATERIAL: 17-4 PH COND. H900  
AS PER AMS 5643

NOTE:  
PLEASE SHIP MATERIAL TO METCOR  
INC.  
560 BOULV. ARTHUR SAUVE  
SAINT-EUSTACHE, QC  
J7R-5A8  
450-473-1884

5	D6101-005P	7075-T7351 8.25X5.0X2.5	7/27/12	60.00	Yours ppd	\$57.9500	\$3.477.00
---	------------	-------------------------	---------	-------	-----------	-----------	------------

Yes

McB P12/13

McB P12/13

**Special Inst:** AS PER DWG D6101 REV. B  
B87265  
MATERIAL: 7075-T7351 AS PER QQ-A-  
250/12  
SIZE: 5.00" X 8.250" X 2.50" THICK  
GRAIN DIRECTION ALONG 5.00"  
LENGTH  
TOLERANCE ON ALL DIMENSION ARE  
+0.030"/-0.000"

**PO Total:** \$4,546.44



No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required YES NO

Change Nbr: 1

Change Date: 7/17/12

# Receiving Report

Date: 12/8/01Batch No: M122596Supplier: MTCORDart P/O: 17466

Packing Slip: Yes  No   
 Invoice: Yes  No   
 Receipt: Cash  Cr

Release Note Attached:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Waybill Attached:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<input checked="" type="checkbox"/>
Shipment Complete:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
QC6 Inspection	<u>DAS</u>		
Work Order	16 9-05-7105/14		

## Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12 CC

Production/Admin:

Location \_\_\_\_\_

Date 12/8/01

Received/Costing

Initial CC

# METCOR INC.

560 BOUL. ARTHUR-SAUVÉ  
ST-EUSTACHE, QC J7R 5A8  
Tel: 450-473-1884 / Fax: 450-491-5498

Recu de Livraison

Order	Shipper	Shipping Seq.
178003	1	63089

Shipped Complete

Customer **215**

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
Ph: 613-632-5200  
Fax: 613-632-1053

Shipped To:

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
Ph: 613-632-5200  
Fax: 613-632-1053

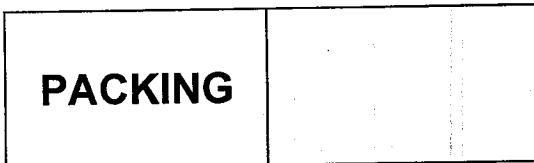
Purchase Order Number	Customer Shipper No.	Material Type	Order Date	Carrier
PO17465		17-4PH	2012/7/26	pick up

Quantity	Part No. / Part Name / Part Description	Pounds
8	ROUND BAR 17-4PH ROUND BAR 1.000 SENT FROM METAUX CASTLE P/O: 17464	130,

CONTENANT: 1 NIL

Container Type	# Of Containers	Container Comments
NIL	1	

CERTIFICAT



Quantity Shipped: 8  
Pounds Shipped: 130,00  
Quantity Remaining: 0  
Pounds Remaining: 0,00

CERTIFICAT

Quantity Shipped:	8
Pounds Shipped:	130,00

Signature:

Date:

Shipped ON: 2012/07/30



**METCOR INC.**  
560 BOUL. ARTHUR-SAUVÉ  
ST-EUSTACHE, QC, J7R 5A8

Tel: 450-473-1884 / Fax: 450-491-5498

# Certificat de Conformité

Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
178003	1

CLIENT / customer 215

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	BON DE LIVRAISON DU CLIENT customer shipper no.	MATÉRIEL material	CODE DE TRAITEMENT mat'l heat code	NUMÉRO DE LOT lot number
PO17465		17-4PH		

## SPÉCIFICATIONS DU PROCÉDÉ

processing specifications

AGE HARDEN

CONDITION H 900

SAE AMS 2759/3 REV.E

Acceptable per AMS 2759/3 TABLE 3, H900 = HRC 40 to 47  
Q 12/3/13

EXIGENCE / requirement	SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
HARDNESS	40 - 47 HRC	8 41 - 43 HRC

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
8	130	ROUND BAR 17-4PH ROUND BAR 1.000 SENT FROM METAUX CASTLE P/O: 17464  CONTENANT: 1 NIL

## COMMENTAIRES / comments

ALL THE HEAT TREATMENT PROCESSING PERFORMED ON THIS ORDER WAS ACCOMPLISHED USING HEAT TREATMENT EQUIPMENT THAT MEETS THE REQUIREMENTS OF AMS 2759. ALL THE HEAT TREATMENT OPERATIONS WERE ACCOMPLISHED IN ACCORDANCE WITH THE REQUESTED/REQUIRED HEAT TREATMENT SPECIFICATION AND ALL REQUIRED VERIFICATIONS TEST HAVE BEEN PERFORMED AND DOCUMENTED. NO UNAUTHORIZED CHANGES OR DEVIATIONS TO REQUIRED HEAT TREATMENT SPECIFICATIONS OR PROCEDURES HAVE BEEN PERFORMED.

CERTIFIÉ par / Certified by: Isabel Oterz

DATE: 2012-07-30



Metcor Inc.  
560, boul. Arthur-Sauvé  
St-Eustache (Québec) J7R 5A8  
Tél.: 450 473-1884  
Télécopieur/Fax administration : 450 491-5498  
Télécopieur/Fax production : 450 491-6454

## Certificat de Conformité Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
178003	1

CLIENT / customer 215

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE  
1270 ABERDEEN  
HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	BON DE LIVRAISON DU CLIENT customer shipper no.	MATERIEL material	CODE DE TRAITEMENT mat'l heat code	NUMÉRO DE LOT lot number
PO17465		17-4PH		

### SPECIFICATIONS DU PROCÉDÉ

processing specifications

AGE HARDEN  
CONDITION H 900  
SAE AMS 2759/3 REV.E

EXIGENCE / requirement SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed RÉSULTATS DE TESTS / results  
HARDNESS 40 - 47 HRC 8 41 - 43 HRC

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
8	130	ROUND BAR 17-4PH ROUND BAR 1.000 SENT FROM METAUX CASTLE P/O: 17464  CONTENANT: 1 NIL

### COMMENTAIRES / comments

CERTIFIÉ par / Certified by:



DATE: 2012-07-30



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO17465**

Purchase Order Date 7/17/12

PO Print Date 7/17/12

Page Number 1 of 1

Order From :  
  
METCOR INC.  
560 BOUL. ARTHUR SAUVE  
SAINT-EUSTACHE, QC J7R 5A8  
CA

VC-MET004

Contact Name  
Vendor Phone 450 473 1884  
Vendor Fax 450 491 5498  
Vendor Account Nbr

Buyer Chantal Lavoie  
Requisition Nbr  
Tax Resale Nbr 10127-2607  
Terms Net 30  
Currency CAD  
FOB Destination-Collect

Ship To : DART AEROSPACE LTD 1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAXED**  
C8/6/12

e-mail

Line Nbr	Reference Revision ID	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1		M17-4PH-H900R1.000 HEAT TREAT	8/10/12	48.00 Yes	FedEx PI collect Each	\$10.0000	\$480.00

**Special Inst:** 17-4 PH ROUND BAR 1.000 SENT FROM  
METAUX CASTLE P/O:17464  
HEAT TREAT TO COND H900  
FTY IN EXCESS OF 170KSI  
FTU IN EXCESS OF 190KSI  
PER AMS2759/3

PLEASE ADVISE PRICE \$\$\$\$\$\$

PO Total:

\$480.00



Change Nbr: 1

Change Date: 7/17/12

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required  YES  NO